

IN THE CLAIMS

1. (Previously Presented) A system, comprising:

a network device including a first memory to store hardware and software version numbers for the network device in a predetermined memory location;

the network device furthering including a physical read port coupled to the first memory, said physical port including a set of one or more signals defining a physical interface and a protocol for reading said hardware and software version numbers from the predetermined memory location independently of any network protocols; and

data-gathering circuitry physically separate from but compatible with said read port and programmed to automatically read said hardware and software version numbers from the predetermined memory location using the protocol,

said automatic reading from the predetermined memory location further programmed to occur in response to detachably coupling the data-gathering circuitry to the network device and independently of any manual inputs over any human interface devices for either the data-gathering circuitry or the network device.

2. (Previously Presented) The system of claim 1, wherein said data-gathering circuitry further includes a second memory for recording said hardware and software version numbers, said second memory partitioned to include plural storage locations for data of various types, said types including network device identification data.

3. (Previously Presented) The system of claim 1, wherein said software version number specifies a currently loaded software version for the network device from a plurality of software versions that are compatible with the network device but not currently loaded on the network device.

4. (Previously Presented) The system of claim 1, wherein the hardware and software version numbers are transferred from the network device to the data-gathering circuitry regardless of whether the network device is accessible by any networks.

5. (Previously Presented) The system of claim 4, wherein both the data-gathering circuitry and the network device are physically decoupled from any visual displays immediately before, during and immediately after the automatic reading.
6. (Previously Presented) The system of claim 5, wherein the data-gathering circuitry is structured to detachably couple to a device having a screen and transfer the hardware and software version numbers to the device having the screen for displaying the hardware and software version numbers on the screen.
7. (Previously Presented) The system of claim 1, wherein said physical port is mounted in an accessible physical location on the network device.
8. (Previously Presented) The system of claim 7 which comprises plural instances of said physical port in at least two distinct physical locations thereon, said plural instances of said physical port providing parallel access to said first memory for reading the hardware and software version numbers therefrom.
9. (Previously Presented) The system of claim 8, wherein said plural instances of said physical port are at least two instances and wherein said two physical ports are physically located adjacent forward and rearward edges of the network device.
10. (Previously Presented) The system of claim 1, wherein said protocol is bit serial.
11. (Previously Presented) The system of claim 10, wherein said interface and protocol are in accordance with the RS-232 standard.
12. (Previously Presented) The system of claim 1, wherein said hardware and software revision indicia are stored in accordance with a predefined format.

13. (Previously Presented) The system of claim 12, wherein said predefined format is in accordance with the Extensible Markup Language (XML) standard.

14. (Previously Presented) A method of gathering network device data, the method comprising:

providing a network device with a non-volatile memory and with an externally accessible physical data read port thereto,

preconfiguring the network device with protocols necessary to cause the network device to automatically initiate communications in response to an external reader mechanism being physically coupled to the data read port;

programming one or more predetermined memory locations in the network device with data regarding a defined identification and a defined configuration of the network device, the one or more memory locations being readable by the external reader mechanism over the data read port;

physically coupling the external reader mechanism to the data read port; and

automatically initiating communications in response to the physical coupling, the automatically initiated communications transferring at least a portion of said data from the network device to the external reader mechanism;

wherein the external reader mechanism is programmed to read the data from the predetermined memory locations.

15. (Cancelled)

16. (Previously Presented) The method of claim 14, wherein said programming of the one or more predetermined memory locations is with data stored in a predefined format.

17. (Previously Presented) The method of claim 14 where the external reader mechanism does not have a user interface.

18. (Previously Presented) The method of claim 14, wherein the communications are in accordance with the RS-232 standard and wherein the data are stored in a predefined format.

19. (Original) The method of claim 18, wherein the predefined format in which the data are stored is in accordance with the Extensible Markup Language (XML) format.

20. (Original) A computer-readable medium containing a program for gathering network device data by an external reader mechanism from a network device, the program comprising:

instructions residing in the network device for programming one or more memory locations in the network device with data regarding a defined identification and a defined configuration of the network device, the one or more memory locations being readable by an external reader mechanism over an externally accessible physical data read port thereto, said programming instructions being executable responsive to a write command received over a network communication line, and

instructions residing in the network device for providing read access, of the programmed data in the one or more memory locations in the network device, to the external reader mechanism responsive to a read prompt from the external reader mechanism.

21. (Original) The computer-readable medium in accordance with claim 20, which computer readable medium further comprises:

instructions residing in the external reader mechanism for prompting a read of the programmed data in the one or more memory locations in the network device and for storing the data read therefrom in a non-volatile memory location within the external reader mechanism.

22. (Original) The computer-readable medium in accordance with claim 21, wherein the programming of the one or more memory locations within the network device is with data stored in a predefined format and wherein the storing of the programmed data within the external reader mechanism is also in a predefined format.

23. (Previously Presented) A system, comprising:

means for providing a network device with a non-volatile memory and with an externally accessible physical data read port thereto,

means for preconfiguring the network device with protocols necessary to cause the network device to automatically initiate communications in response to an external reader mechanism being physically coupled to the data read port;

means for programming one or more memory locations in the network device with data regarding a defined identification and a defined configuration of the network device, the one or more memory locations being readable by an external reader mechanism over the data read port.

means for physically coupling the external reader mechanism to the data read port; and

automatically initiating communications in response to the physical coupling, the automatically initiated communications transferring at least a portion of said data from the network device to the external reader mechanism;

wherein said programming of the one or more predetermined memory locations is with data stored in a predefined format.

24. (Previously Presented) The system of claim 23 wherein the external reader mechanism is a handheld portable device that uploads the portion of said data to a personal computer independently of any Local Area Networks (LANs).

25. (Previously Presented) The system of claim 24 wherein said external reader mechanism includes a predefined physical and logical interface and means for reading and recording the portion of said data in accordance with a predefined protocol.

26. (Previously Presented) The system of claim 25 wherein the protocol is bit serial, wherein the interface and protocol are in accordance with the RS-232 standard and wherein the portion of the data is stored in a predefined format.

27. (Previously Presented) The system of claim 26 wherein the predefined format in which the portion of the data is stored is in accordance with the Extensible Markup Language (XML) format.

28. (Currently Amended) Apparatus for gathering network network configuration information from a screenless network device having a physical port for exporting network configuration information stored in a memory device therein, the apparatus comprising:

- a screenless portable device;
- a memory within said screenless portable device;
- a physical port on the screenless portable device, said physical port including a set of one or more signals defining a physical interface and a protocol for reading the network configuration information from the memory device in the screenless network device, said protocol operating independently of any network protocols, and
- a processor coupled with the memory within said portable device, the processor to automatically initiate a transfer of the network configuration information from the screenless network device to said memory in said screenless portable device in response to a manual physical coupling of the screenless network device to the physical port, said automatic initiated transfer occurring independently of any manual operations besides the manual physical coupling.

29. (Previously Presented) The apparatus of claim 28, wherein said network configuration information includes one or more of a hostname, a Internet protocol (IP) address, a medium access control (MAC) address, one or more common language location identifier (CLLI) codes and physical device location information for the screenless network device.

30. (Previously Presented) The apparatus of claim 29, wherein said network configuration information further includes network device configuration data.

31. (Original) The apparatus of claim 30, wherein said network device configuration data include firmware and software configuration data.

32. (Original) The apparatus of claim 28, wherein said protocol is bit serial.

33. (Original) The apparatus of claim 32, wherein said interface and protocol are in accordance with the RS-232 standard.

34. (Original) The apparatus of claim 28, wherein said data are stored in accordance with a predefined format.

35. (Original) The apparatus of claim 34, wherein said predefined format is in accordance with the Extensible Markup Language (XML) standard.

36. (Previously Presented) A system for gathering network device data from a network device, the system comprising:

a first non-volatile memory on the network device, said first memory storing firmware configuration data and being writable via the network and being readable;

a physical read port on the network device, said physical port including a set of one or more signals defining a physical interface and a protocol for reading said data from said first memory; and

a portable reader mechanism programmed to read said data from said first memory in accordance with said protocol, said portable reader mechanism including a second non-volatile memory for recording said data read from said first memory, thereby enabling a user to gather and record firmware configuration data;

wherein said portable reader mechanism is configured so that a user can gather and record the firmware configuration data without relying on a network connection.

37. (Previously Presented) The system of claim 36, wherein said second non-volatile memory is partitioned to include plural storage locations for data of various types, said types including network device identification data.

38. (Previously Presented) The system of claim 37, wherein said network device identification data includes one or more of the hostname, the Internet protocol (IP) address, the medium access control (MAC) address, one or more common language Location Identifier (CLLI) codes and physical device location information for the network device.

39. (Previously Presented) The system of claim 37, wherein said types further include network device configuration data.

40. (Previously Presented) The system of claim 39, wherein said network device configuration data includes hardware and software configuration data.

41. (Previously Presented) The system of claim 40, wherein said hardware and software configuration data includes hardware and software revision indicia.

42. (Previously Presented) The system of claim 36, wherein said physical port of said network device is mounted in an accessible physical location.

43. (Previously Presented) The system of claim 42 further comprising a plurality of physical ports in at least two distinct physical locations thereon, said plurality of physical ports providing parallel access to said first non-volatile memory for reading the device-specific data therefrom.

44. (Previously Presented) The system of claim 43, wherein at least one of the plurality of physical ports is located on a front edge of the network device and at least a second of the plurality of physical ports is located on a rear edge of the network device.

45. (Previously Presented) The system of claim 36, wherein said protocol is bit serial.

46. (Previously Presented) The system of claim 45, wherein said interface and protocol are in accordance with the RS-232 standard.

47. (Previously Presented) The system of claim 36, wherein said data are stored in accordance with a predefined format.

48. (Previously Presented) The system of claim 47, wherein said predefined format is in accordance with the Extensible Markup Language (XML) standard.

49. (Previously Presented) A method, comprising:

providing a network device with a non-volatile memory and with an externally accessible physical data read port thereto;

preconfiguring the network device with protocols necessary to cause the network device to automatically initiate communications in response to an external reader mechanism being physically coupled to the data read port;

programming one or more memory locations in the network device with data regarding a defined identification and a defined configuration of the network device, the one or more memory locations being readable by an external reader mechanism over the data read port; and

physically coupling the external reader mechanism to the data read port; and

automatically initiating communications in response to the physical coupling, the automatically initiated communications transferring at least a portion of said data from the network device to the external reader mechanism;

where the external reader mechanism does not have a user interface.

50. (Previously Presented) The method of claim 49, wherein said programming of the one or more memory locations is with data stored in a predefined format.

51. (Previously Presented) The method of claim 50, wherein said external reader mechanism includes a predefined physical and logical interface and wherein the automatically initiated communications are in accordance with a predefined protocol.

52. (Previously Presented) The method of claim 51, wherein the predefined protocol is bit serial, wherein the interface is in accordance with the RS-232 standard and wherein the portion of the data is stored in a predefined format.

53. (Previously Presented) The method of claim 52, wherein the predefined format in which the portion of the data is stored is in accordance with the Extensible Markup Language (XML) format.

54. (Previously Presented) A system for gathering network device data from a network device having a physical port for exporting network device-specific data stored in a memory device therein, the apparatus comprising:

a hand held portable device;

a non-volatile memory within said portable device;

a processor coupled with the non-volatile memory within said portable device; and

a physical port on the portable device, said physical port including a set of one or more signals defining a physical interface and a protocol for automatically reading data from the memory device in the network device in response to a physical coupling of the physical port and the network device, said protocol operating independently of any network protocols;

wherein the non-volatile memory within said portable device is partitioned to include plural storage locations for data of various types, said types including network device identification data, thereby enabling a user to gather and record network device data and to transport such network device data to a remote location,

and further wherein said hand held portable device is configured to allow said user to gather and record network device data specific to the network device without relying on a network connection.

55. (Previously Presented) The system of claim 54, wherein said network device identification data include one or more of a hostname, an Internet protocol (IP) address, a medium access control (MAC) address, one or more common language location identifier (CLLI) codes and physical device location information from the network device.

56. (Previously Presented) The system of claim 55, wherein said types further include network device configuration data.

57. (Previously Presented) The system of claim 56, wherein said network device configuration data include firmware and software configuration data.

58. (Previously Presented) The system of claim 54, wherein said protocol is bit serial.

59. (Previously Presented) The system of claim 58, wherein said interface and protocol are in accordance with the RS-232 standard.

60. (Previously Presented) The system of claim 54, wherein said data are stored in accordance with a predefined format.

61. (Previously Presented) The system of claim 60, wherein said predefined format is in accordance with the Extensible Markup Language (XML) standard.

62. (Previously Presented) A system, comprising:

a first memory storing a Basic Input Output System (BIOS) version number that distinguishes a currently loaded BIOS version for the network device from a plurality of BIOS versions that are compatible with the network device but not currently loaded on the network device, said first memory integrated with the network device;

a physical read port including a set of one or more signals defining a physical interface and a protocol for reading the BIOS version number from said first memory, said read port integrated with the network device and said protocol operating independently of any network protocols; and

data-gathering circuitry physically separate from but compatible with the network device having said read port and programmed to read the BIOS version number from said first memory in accordance with said protocol, said data-gathering circuitry including a second non-volatile memory for recording the BIOS version number read from said first memory, said data gathering circuitry structured to detachably couple to the network device thereby enabling a user to gather and record the BIOS version number.

63. (Previously Presented) The system of claim 61 wherein the network device is a rack mounted server.